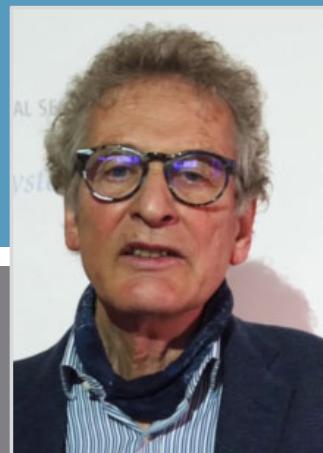




IEA2021 - Scientific Symposium **Machine and System Safety in Digital Transformation**



Peter Nickel, Hans-Jürgen Bischoff

21st Triennial Congress of the International Ergonomics Association (IEA 2021)
“HFE in the Connected World – L’Ergonomie 4.0”,
June 13-18, 2021, virtually in Vancouver, Canada

www.issa.int + www.safe-machines-at-work.org



Machine and System Safety in Digital Transformation

■ IEA2021 Scientific Symposium #33 / 1-3

- Part #33-1 (June 15, 09h45 (UTC-7))
Machines and Systems in Automation
Chairs: Peter Nickel & Hans-Jürgen Bischoff
- Part #33-2 (June 16, 07h45 (UTC-7))
Machines and Systems in Manufacturing
Chairs: Hans-Jürgen Bischoff & Peter Nickel
- Part #33-3 (June 17, 06h00 (UTC-7))
Machines and Systems in Transportation
Chairs: Peter Nickel & Hans-Jürgen Bischoff

■ Information and Contact

- doi:10.1007/978-3-030-74611-7_22
- scholl@ivss.org



- Welcome address from
 - Dr. Hans-Jürgen Bischoff
 - Secretary General of the ISSA International Section on Prevention Machine and System Safety



Machine and System Safety in Digital Transformation

■ IEA2021 Scientific Symposium #33-3

- Thursday, 06h00 (UTC-7), June 17, 2021
-

- N. Man, S.S. Man, T.R. Zhang, W.H. Chan, A.H.S. Chan:
Psychological assessment for bus captain selection

- M. Wichtl, U. Amon-Glassl:
Machine and system safety – not without ergonomics! An explanation based on the example of the planning and the construction process of a new tram's driver's cabin

■ Machines and Systems in Transportation

- Chairs: Peter Nickel & Hans-Jürgen Bischoff

- C. Murie, W. Buchmann, L. Cuvelier, F. Barcellini, F. Bernard, R. Paquin:
Acting in safety from the design to the implementation of helicopter maintenance

- S. Frohriep:
Future-proof commercial vehicle seat and interiors development

- R. Dewi, M. Rohmatin, A. Maryani, D. Dewi:
Improving recognizability rate of traffic sign icons



Machine and System Safety in Digital Transformation

■ IEA2021 Scientific Symposium #33-2

- Wednesday, 07h45 (UTC-7), June 16, 2021

- Q. Bourret, J. Charland, D. Brouillette, D. Imbeau, J.-B. Djire:
Ergo4All: A risk assessment and ergonomic guidance tool

- E. Poddar:
HFE in ever-changing industrial scenario

■ Machines and Systems in Manufacturing

- Chairs: Hans-Jürgen Bischoff & Peter Nickel

- C. Berlin, M. Wollter Bergman, M. Babapour Chafi, A.-C. Falck, R. Örtengren:
A systemic overview of factors affecting the cognitive performance of industrial manual assembly workers

- R. Osqueizadeh, S. Raeisi, M. Maghsoudipour, A. Salar Jafarpisheh:
Ergonomic redesign of an industrial control panel

Machine and System Safety in Digital Transformation

■ IEA2021 Scientific Symposium #33-1

- Tuesday, 09h45 (UTC-7), June 15, 2021

- P. Nickel, H.-J. Bischoff, P. Bärenz, S. Radandt, U. Kaufmann, M. Wichtl, L. Monica, E. Poddar: Work system design in machinery and system safety with a focus on human system interaction

- L. Monica, S. Anastasi, F. Draicchio, J. Ortiz, G. Chini, S. Toxiri: Occupational exoskeletons: A new challenge for human factors, ergonomics and safety disciplines in the workplace of the future

■ Machines and Systems in Automation

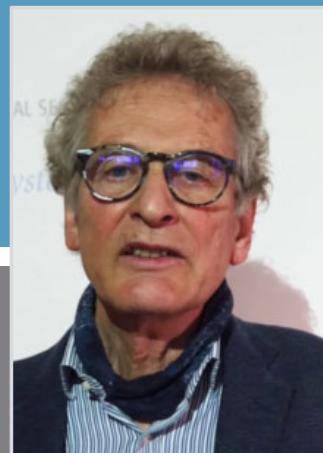
- Chairs: Peter Nickel & Hans-Jürgen Bischoff

- D. Patten, M. Wilson, R. Vomiero: Machine safety and robotics compliance and HFE design

- L. Gualtieri, F. Fraboni, M. De Marchi, E. Rauch: Design guidelines for cognitive ergonomics in industrial human-robot collaborative assembly systems



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